

REMARKS

Claims 1, 2, 18, 20, and 28 remain pending in the present application. Claims 3-17, 19, 21-27 and 29-48 were previously canceled without prejudice. Claim 1 is hereby amended. No new matter is being added.

Rejections under Section 103

Claims 1, 18, 20 and 28 stand rejected under Section 103 as being unpatentable over Wagner et al (USP 5,659,172) in view of Tsai et al (USP 5,822,055). Applicants traverse this rejection with respect to the claims as hereby amended.

Claim 1 is hereby amended and now recites as follows.

Claim 1: A method of inspecting and/or characterizing a substrate, comprising:

obtaining a first dataset (D_{A1}), wherein said first dataset includes data derived from an image collected by a first detector of a first region of said substrate;

obtaining a second dataset (D_{B1}), wherein said second dataset includes data derived from an image collected by a second detector of at least a portion of said first region of said substrate;

obtaining a third dataset (D_{A2}), wherein said third dataset includes data derived from an image collected by said first detector from a second region of said substrate, wherein said second region of said substrate is expected to be substantially identical to said first region;

obtaining a fourth dataset (D_{B2}), wherein said fourth dataset includes data derived from an image collected by said second detector of at least a portion of said second region of said substrate; and

processing information derived from said first, second, third and fourth datasets to detect a defect in at least one of said first or second regions using a generalized equation of a form $A = (P(BD_{A1} + CD_{B1}))^M / (SD_{A1} + TD_{B1})^Q + (ED_{A2} + FD_{B2})^N / (UD_{A2} + VD_{B2})^R)^K$, where values of B, C, E, F, M, K, P, Q, R, S, T, U, V, and N represent constants and/or functions of other variables, wherein said information processing further includes calculating a first function representing comparison between said first and third datasets and calculating a second function representing comparison between said second and fourth data sets; and

classifying the detected defect using output values of the first and second functions.

As seen from the above, claim 1 is now amended to include an equation recited starting on the bottom of page 8 of the specification. The specification recites as follows.

... For example, one may use a generalized equation of the form $A = (P(BD_{A1} + CD_{B1})^M / (SD_{A1} + TD_{B1})^Q + (ED_{A2} + FD_{B2})^N / (UD_{A2} + VD_{B2})^R)^K$; where the values of B, C, E, F, M, K, P, Q, R, S, T, U, V, and N represent constants and/or functions of other variables.

Applicants thank the Examiner for recommending the amendment to claim 1 to add the aforementioned equation.

Applicants respectfully submit that, with the above-discussed amendment, claim 1 is now patentably distinguished over Wagner et al and Tsai et al. Neither Wagner et al nor Tsai et al disclose or teach the invention of amended claim 1.

Claims 18, 20, and 28 depend from claim 1. As such, claims 18, 20, and 28 are also now patentably distinguished over the cited art for at least the same reasons discussed above in relation to claim 1.

Regarding claim 2, claim 2 stands rejected under Section 103 as being unpatentable over Wagner et al in view of Tsai et al and further in view of Maeda et al (USP 6,169,282). This rejection is respectfully traversed in regards to the claims as hereby amended.

As discussed above, amended claim 1 now includes the equation from page 8 of the specification. Neither Neither Wagner et al, nor Tsai et al, nor Maeda et al disclose or teach the invention of amended claim 1.

Claim 2 depends from amended claim 1. Hence, applicants respectfully submit that dependent claim 2 is now also patentably distinguished over the cited art.

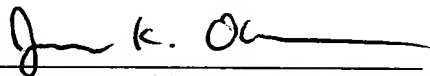
Conclusion

For at least the above reasons, it is respectfully submitted that the pending claims, as hereby amended, are now in form for allowance. The Examiner is invited to telephone the undersigned at (408) 436-2111 for any questions.

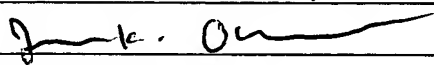
If, for any reason, an insufficient fee has been paid, the Commissioner is hereby authorized to charge the insufficiency to Deposit Account No. 08-2025.

Respectfully submitted,
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